(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 13 October 2005 (13.10.2005)

PCT

(10) International Publication Number WO 2005/095377 A1

(51) International Patent Classification⁷: C07D 317/44

(21) International Application Number:

PCT/GB2005/001200

(22) International Filing Date: 29 March 2005 (29.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

0400873-6 31 March 2004 (31.03.2004) SE

(71) Applicant (for all designated States except MG, US): AS-TRAZENECA AB [SE/SE]; S-151 85 Sodertalje (SE).

- (71) Applicant (for MG only): ASTRAZENECA UK LIM-ITED [GB/GB]; 15 Stanhope Gate, London, Greater London W1K 1LN (GB).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): ABEDI, Vahak [SE/SE]; AstraZeneca R & D Sodertalje, S-151 85 Sodertalje (SE).

- (74) Agent: ASTRAZENECA; Global Intellectual Property, S-151 85 Soderatlje (SE).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: CHEMICAL PROCESS

(57) Abstract: The present invention provides a process for the preparation of a compound of formula (I): wherein R^1 is C_{1-6} alkyl; R^2 and R^3 are, independently, C_{1-6} alkyl; and R^4 is C_{1-6} alkyl or benzyl (wherein the phenyl ring of benzyl is optionally substituted by nitro, $S(O)_2(C_{1-4}$ alkyl), cyano, C_{1-4} alkyl, C_{1-4} alkoxy, $C(O)(C_{1-4}$ alkyl), $N(C_{1-6}$ alkyl), C_{1-6} alkyl), C_{1-6} alkyl), the process comprising reacting a compound of formula (II): wherein C_{1-6} alkyl are as defined above, with a suitable base; and reacting the product so formed with C_{1-6} alkyl), wherein C_{1-6} is as defined above and C_{1-6} is chloro, bromo or iodo; wherein the process is carried out in a suitable solvent at a temperature in the range C_{1-6} to C_{1-6} alkyl) are used in the process.

